

REMARKS

The Examiner is thanked for the performance of a thorough search.

SPECIFICATION

In the specification, the paragraph on page 10, lines 6-13 has been amended to provide a typographical correction.

STATUS OF CLAIMS

Claims 1-28 have been cancelled.

Claims 29-56 have been added.

No claims have been amended or withdrawn.

Claims 29-56 are currently pending in the application.

SUMMARY OF THE REJECTIONS/OBJECTIONS

Claims 1, 5, 7, 8, 9, 13, 15, 16, and 17 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent Number 6,484,149 B1 issued to Jammes et al. ("*Jammes*"), in view of U.S. Patent Number 5,903,898 issued to Cohen et al. ("*Cohen*"), in further view of U.S. Patent Number 5,907,848 issued to Zaiken et al. ("*Zaiken*"), and still in further view of U.S. Patent Number 5,592,660 issued to Yakota et al. ("*Yakota*").

Claims 2, 4, 10, and 12 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Jammes*, in view of *Cohen*, in further view of *Zaiken*, still in further view of *Zaiken*, and finally in further view of U.S. Patent Number 6,308,168 B1 issued to Dovich et al. ("*Dovich*").

Claims 3 and 11 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Jammes*, in view of *Cohen*, in further view of *Zaiken*, still in further view of *Zaiken*, and finally in further view of U.S. Patent Number 6,446,074 B1 issued to Miller et al. ("*Miller*").

Claims 6 and 14 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Jammes*, in view of *Cohen*, in further view of *Zaiken*, still in further view of *Zaiken*, and finally in further view of U.S. Patent Number 5,555,404 issued to Torbjornsen et al. ("*Torbjornsen*").

Claims 18-28 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent Number 5,970,502 issued to Salkewicz et al. ("*Salkewicz*"), in view of *Cohen*, in further view of U.S. Patent Number 6,374,242 B1 issued to Althoff et al. ("*Althoff*"), still in further view of U.S. Patent Number 6,609,099 B1 issued to Matsuzaki ("*Matsuzaki*"), still in further view of *Zaiken*, and finally in further view of *Miller*.

The rejections are respectfully traversed.

A. CLAIM 29

(1) INTRODUCTION TO CLAIM 29

Claim 29 features:

“A method for using a log associated with a first database to update a second database, the method comprising the computer-implemented steps of:
based on said log that is associated with said first database, identifying first data;
generating second data based on said first data; and
sending said second data to said second database.” (Emphasis added).

Thus, Claim 29 features using a log for a first database to identify first data that is used to generate second data that is sent to second database. For example, in the embodiment illustrated in Figs. 1, 3, and 8 of the Application, the first database is operational data store (ODS) 11, the second database is enterprise data warehouse 16, and log monitor 26 performs the steps of identifying, generating, and sending. Log monitor 26 opens log file 54 in step 151 and then reads a log entry in step 152. If the log entry applies to a listed table in step 153, the log entry is evaluated by log monitor 26 against a rule set 55 in step 154. If the log entry satisfies the rule set in step 155, log monitor 26 generates an updated record using metadata 56 in step 156. Then log monitor 26 sends the updated record to data warehouse 16.

(2) DISCUSSION OF *COHEN*

In contrast to Claim 29, *Cohen* discloses an approach for “selectively disabling the logging of database operations during the execution of database processes or the creation of database objects.” (Abstract.) In *Cohen*’s approach:

“changes made to the database through data manipulation statements or queries can include a statement that the change to be executed is not to be logged. If the operation is to be logged, a log buffer stores the information about the changes and a log write background process writes the operation entries to disk. Similarly, the creation or manipulation of database objects through object manipulation statements can be logged or not logged. As with logged data manipulation statements, if the manipulation of a database object is to be logged, a log buffer stores the information about the changes and a log writer background process writes the operation entries to disk.” (Abstract.)

Thus, *Cohen* discloses a selective logging approach in which log entries may or may not be created for a given database operation. *Cohen* focuses on whether the logs are generated, not on how they are used. *Cohen* does not disclose any *use* of such logs other than conventional uses.

In contrast, the approach of Claim 29 features the use of a log to identify first data and generating second data based on the identified first data. There is nothing in *Cohen* about using the subsequently created logs in the manner of Claim 29. The approach of Claim 29 may be used with a log created with or without the approach of *Cohen* because the approach of Claim 29 in using a log associated with a first database to update a second database is separate and independent from how the log is created, whether or not the approach of *Cohen* is used for such log creation. Thus, *Cohen* does not disclose, teach, suggest, or in any way render obvious “based on said log that is associated with said first database, identifying first data” and “generating second data based on said first data,” as featured in Claim 29.

(3) DISCUSSION OF *ZAIKEN*

In contrast to Claim 29, *Zaiken* discloses an approach for “providing external transaction protection for a database using the database log or journal.” (Abstract.) *Zaiken*’s approach involves:

“creating a set of transaction templates which define transactions, using the templates to determine whether each record or entry in the journal represent part of a transaction, and maintaining a set of index file indicating transactions in progress...For each entry in the journal, a determination is made whether the entry belongs to a transaction based on the data fields represented in the entry and the key values associated with the templates. The index files are maintained by creating a new index file for each new transaction, adding data to a given index file from a journal entry which belongs to the transaction associated with the given index file, and deleting index files when transactions

with which they are associated are complete. In the event the database is damaged, existing index files are used to determine which transactions did not complete before the database was damaged. The actions which were completed may be rolled back.” (Abstract.)

Thus, *Zaiken* discloses a database recovery approach in which index files are used to identify incomplete transactions that may then be rolled back. In contrast, the approach of Claim 29 features the use of a log to identify first data and generating second data based on the identified first data. There is nothing in *Zaiken* about using the subsequently created logs in the manner of Claim 29. The approach of Claim 29 may be used with the database recovery approach of *Zaiken* as the approach of Claim 29 in using a log associated with a first database to update a second database is separate and independent from how database recovery is performed whether or not the approach of *Zaiken* is used for such database recovery. Thus, *Zaiken* does not disclose, teach, suggest, or in any way render obvious “**based on said log that is associated with said first database, identifying first data**” and “**generating second data based on said first data,**” as featured in Claim 29.

(4) *IN RE DEMBICZAK*: HINDSIGHT REASONING & LACK OF SUGGESTION OR
MOTIVATION TO COMBINE REFERENCES

The Office Action states that it would have been obvious to combine *Cohen* and *Zaiken* along with the two additional prior art references *Jammes* and *Yakota* to obtain the approach described in Claim 29 (not to mention the combination of *Cohen* and *Zaiken* with two, three, or even four additional prior art references in the rejections of the remaining claims of the Application). However, notwithstanding the fact that neither *Cohen* nor *Zaiken* disclose the approach of Claim 29, the Applicant respectfully submits that there is nothing in either *Cohen* or *Zaiken* that teaches or suggests combining their respective teachings.

As stated in the Federal Circuit decision *In re Dembiczak*, 50 USPQ.2d 1617 (Fed. Cir. 1999), (citing *Gore v. Garlock*, 220 USPQ 303, 313 (Fed. Cir. 1983)), “it is very easy to fall victim to the insidious effect of the hindsight syndrome where that which only the inventor taught is used against its teacher.” *Id.* The Federal Circuit stated in *Dembiczak* “that the best defense against subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or suggestion

to combine prior art references.” *Id.* Thus, the Federal Circuit explains that a proper obviousness analysis requires “**particular factual findings** regarding the locus of the suggestion, teaching, or motivation to combine prior art references.” *Id.* (emphasis added).

In particular, the Federal Circuit states:

“We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved...although ‘the suggestion more often comes from the teachings of the pertinent references’...The range of sources available, however, does **not diminish the requirement for actual evidence**. That is, the **showing must be clear and particular**...Broad conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence.’” *Id.* (emphasis added; internal citations omitted).

Neither *Cohen* and *Zaiken* show any suggestion, teaching, or motivation to combine their teachings, nor does the Office Action provide a “clear and particular” showing of the suggestion, teaching, or motivation to combine their teachings. In fact, the only motivation provided in the Office Action is the hindsight observation that by combining features of those references, one may achieve the benefits achieved from the invention as described and claimed in the application. It is respectfully submitted that such a hindsight observation is not consistent with the Federal Circuit’s requirement for “particular factual findings.”

(5) CONCLUSION OF DISCUSSION OF CLAIM 1

Because both *Cohen* and *Zaiken* fail to disclose, teach, suggest, or in any way render obvious, either alone or in combination, “**based on said log that** is associated with said first database, **identifying first data**” and “**generating second data based on said first data**,” as featured in Claim 29, the Applicant respectfully submits that, for at least the reasons stated above, Claim 29 is allowable over the art of record and is in condition for allowance.

B. CLAIM 43

Claims 43 contains features that are the same as those described above with respect to Claim 29, and in particular both feature “obvious “**based on said log that** is associated with said first database, **identifying first data**” and “**generating second data based on said first data**.” Therefore, based on at least the reasons stated above with respect to Claim 29, the

Applicant respectfully submits that Claim 43 is allowable over the art of record and is in condition for allowance.

C. CLAIMS 30-42 AND 44-56

Claims 30-42 and 44-56 are dependent upon Claims 29 and 43 respectively, and thus include each and every feature of the corresponding independent claims. Each of Claims 30-42 and 44-56 is therefore allowable for the reasons given above for the Claims 29 and 43. In addition, each of Claims 30-42 and 44-56 introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time. Therefore, it is respectfully submitted that Claims 30-42 and 44-56 are allowable for the reasons given above with respect to Claims 29 and 43.

CONCLUSION

The Applicant believes that all issues raised in the Office Action have been addressed and that allowance of the pending claims is appropriate. After entry of the amendments, further examination on the merits is respectfully requested.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

To the extent necessary to make this reply timely filed, the Applicant petitions for an extension of time under 37 C.F.R. § 1.136.



Application of David REED, Ser. No. 09/804,672, Filed March 9, 2001
Reply to Office Action

If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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